

### CLAIMS

1. Connection architecture for xDSL broadband networks which, in a main distribution frame, is a master unit (1), a control box (1') and a series of frames (2)  
5 with metallic access points for connection with a non-intrusive test head in the pairs of the broadband networks and, in this test head is a high-impedance probe, characterized in that said high-impedance probe (8) is located close to the telephone pair, in order to reduce the bridge tap produced by excessively long wiring between the pair and the test head (4), and more specifically desynchronisation problems  
10 between the DSLAM signal and the user's modem when non-intrusive tests or checks are being carried out.
2. Connection architecture for xDSL broadband networks according to claim 1, characterized in that, preferably, a wideband amplifier is included in the network to  
15 amplify the signal transmitted by the high-impedance probe, and to thus obtain longer test bus lengths (7).
3. Connection architecture for xDSL broadband networks, according to claims 1 or 2, used in a frame based test access matrix system (FTAM), implemented in a  
20 main distribution frame or active cabinet, in which said architecture allows a longer test bus (7) in order to group bigger quantities of pairs per system and/or the installation of the test head at a longer distance from the frame.
4. Connection architecture for xDSL broadband networks, according to at least  
25 one of the preceding claims, characterized in that the high-impedance probe (8) together with the test head (4), is located in the main distribution frame (9).
5. Connection architecture for xDSL broadband networks, according to at least one of the preceding claims, characterized in that the high-impedance probe (8) is  
30 integrated in the master unit (1) and is outside the test head (4), which can be at a considerable distance from the main distribution frame (9).
6. Connection architecture for xDSL broadband networks, according to at least one of the preceding claims, characterized in that the internal high-impedance probe  
35 (8) is housed inside the main distribution frame (9), connected directly to the master unit (1) and physically independent from the test head (4), which can be at a

considerable distance from the main distribution frame (9).

5 7. Connection architecture for xDSL broadband networks, according to at least one of the preceding claims, characterized in that the high-impedance probe (8) is installed in any of the elements making up the test access matrix system (FTAM), including the master unit, the control board, the TAM board, the FTAM cartridge, or any other element.

10 8. Connection architecture for xDSL broadband networks, according to at least one of the preceding claims, characterized in that the wideband amplifier is installed in any of the elements making up the test access matrix system (FTAM), including the master unit, the control board, the TAM board, the FTAM system cartridge, or any other element.

15 9. Connection architecture for xDSL broadband networks, according to at least one of the preceding claims, characterized in that the wideband amplifier can be connected by means of connectors in any of the elements making up the test access matrix system (FTAM), including the master unit, the control board, the TAM board, the FTAM cartridge, or any other element.

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